



1  
00:00:00,480 --> 00:00:03,940

[Music]

2  
00:00:08,220 --> 00:00:09,500

>>My name is Abbigail Waddell.

3  
00:00:09,500 --> 00:00:13,380

I go to North Carolina A&T State University  
studying electrical engineering.

4  
00:00:13,380 --> 00:00:17,400

I'm working with Al Bowers on PRANDTL this  
summer.

5  
00:00:17,400 --> 00:00:22,610

This jumbled mess of wires you see before  
you is our EPM, electronic pressure measurement

6  
00:00:22,610 --> 00:00:23,610

system.

7  
00:00:23,610 --> 00:00:27,680

What it's going to do is measure the pressure  
along the wing of the plane.

8  
00:00:27,680 --> 00:00:29,680

That's what all of these tubes are for.

9  
00:00:29,680 --> 00:00:33,980

They are mapped to different pressure ports  
on the wing.

10  
00:00:33,980 --> 00:00:38,690

So we're gonna see the span load across this  
very special wing, trying to prove Al Bowers'

11  
00:00:38,690 --> 00:00:43,640

theory of proverse yaw, and examine better  
how birds fly and why they can fly without

12

00:00:43,640 --> 00:00:46,760

vertical tails.

13

00:00:46,760 --> 00:00:51,780

We're doing a preliminary test before we actually install this on the aircraft, to be able to

14

00:00:51,780 --> 00:00:55,860

see if we're recording accurately or not, because obviously if it's not recording accurately,

15

00:00:55,860 --> 00:00:57,790

then it's useless.

16

00:00:57,790 --> 00:01:01,990

By breathing into this tube you raise the level of pressure in it, so we can see if it's recording

17

00:01:01,990 --> 00:01:04,030

accurately.

18

00:01:04,030 --> 00:01:08,060

The next step after this is we take all of this and we put it into a lovely 3D printed

19

00:01:08,060 --> 00:01:09,640

box.